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<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/055797
				Filing Date	January 22, 2002
				First Named Inventor	David Beach
				Art Unit	1638
				Examiner Name	Not Yet Assigned
Sheet	1	of	5	Attorney Docket Number	GNCA-P03-007

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U.S. PATENT DOCUMENTS					
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		Number-Kind Code <sup>2</sup> (if known)			
KC	AA	6,326,193	12-04-2001	Liu et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
KC  ↓	AB	WO 01/36646	05-25-2001	Cancer Res. Campaign Tech.		
	AC	WO 01/48183	07-05-2001	Devgen NV		
	AD	WO 01/75164	10-11-2001	Whitehead Inst. Biomed. Res.		
	AE	WO 02/44321	06-06-2002	Max-Planck-Gesellschaft		
	AF	WO 02/059300	08-01-2002	J & J Res. Pty Ltd		
	AG	WO 02/068635	09-06-2002	Novartis		

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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KC	AH	Bass, B.L. Double-Stranded RNA as a Template for Gene Silencing. <i>Cell</i> 101, 235-238 (2000).	
	AI	Baulcombe, D.C. RNA as a target and an initiator of post-transcriptional gene silencing in transgenic plants. <i>Plant Mol. Biol.</i> 32, 79-88 (1996).	
	AJ	Baulcombe, D.C. Gene silencing: RNA makes RNA makes no protein. <i>Curr. Biol.</i> 9, R599-R601 (1999).	
	AK	Bohmer, K. et al. AGO1 defines a novel locus of Arabidopsis controlling leaf development. <i>EMBO J.</i> 17, 170-180 (1998).	
	AL	Bosher, J.M. et al. RNA Interference Can Target Pre-mRNA: Consequences for Gene Expression in a Caenorhabditis elegans Operon. <i>Genetics</i> 153, 1245-1256 (Nov. 1999).	
	AM	Bosher, J.M. & Labouesse, M. RNA interference: genetic wand and genetic watchdog. <i>Nat. Cell Biol.</i> 2, E31-36 (2000).	
	AN	Catalanotto, C. et al. Gene silencing in worms and fungi. <i>Nature</i> 404, 245 (2000).	
Examiner Signature	Date Considered		



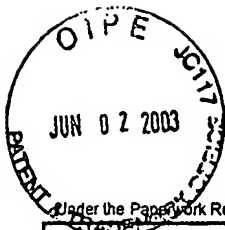
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Filing Date	January 22, 2002
		First Named Inventor	David Beach
		Art Unit	1638
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	GNCA-P03-007
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KC	AO	Cogoni, C. & Macino, G. Gene silencing in <i>Neurospora crassa</i> requires a protein homologous to RNA-dependent RNA polymerase. <i>Nature</i> 399, 166-169 (1999).
	AP	Cogoni, C. & Macino, G. Posttranscriptional Gene Silencing in <i>Neurospora</i> by a RecQ DNA Helicase. <i>Science</i> 286, 2342-2344 (1999).
	AQ	Connelly, J.C. & Leach, D.R. The <i>sbcC</i> and <i>sbcD</i> genes of <i>Escherichia coli</i> encode a nuclease involved in palindrome inviability and genetic recombination. <i>Genes Cell</i> 1, 285-291 (1996).
	AR	Dalmay, T. et al. An RNA-Dependent RNA Polymerase Gene in <i>Arabidopsis</i> is Required for Posttranscriptional Gene Silencing Mediated by a Transgene but Not by a Virus. <i>Cell</i> 101, 543-553 (2000).
	AS	Di Nocera, P.P. & Dawid, I.B. Transient expression of genes introduced into cultured cells of <i>Drosophila</i> . <i>PNAS</i> 80, 7095-7098 (1983).
	AT	Fagard, M. et al. AGO1, QDE-2, and RDE-1 are related proteins required for post-transcriptional gene silencing in plants, quelling in fungi, and RNA interference in animals. <i>PNAS</i> 97, 11650-11654 (10 Oct. 2000).
	AU	Fire, A. RNA-triggered gene silencing. <i>Trends Genet.</i> 15, 358-363 (1999).
	AV	Fire, A. et al. Potent and specific genetic interference by double-stranded RNA in <i>Caenorhabditis elegans</i> . <i>Nature</i> 391, 806-811 (1998).
	AW	Fortier, E. & Belote, J.M. Temperature-Dependent Gene Silencing by an Expressed Inverted Repeat in <i>Drosophila</i> . <i>Genesis</i> 26, 240-244 (2000).
	AX	Gillespie, D.E. & Berg, C.A. homeless is required for RNA localization in <i>Drosophila</i> oogenesis and encodes a new member of the DE-H family of RNA-dependent ATPases. <i>Genes Dev.</i> 9, 2495-2508 (1995).
	AY	Guo, S. & Kemphues, K.J. <i>par-1</i> , a Gene Required for Establishing Polarity in <i>C. elegans</i> Embryos, Encodes a Putative Ser/Thr Kinase that is Asymmetrically Distributed. <i>Cell</i> 81, 611-620 (1995).
	AZ	Hamilton, J.A. & Baulcombe, D.C. A Species of Small Antisense RNA in Posttranscriptional Gene Silencing in Plants. <i>Science</i> 286, 950-952 (1999).
	BA	Hammond, S.M. et al. An RNA-directed nuclease mediates post-transcriptional gene silencing in <i>Drosophila</i> cells. <i>Nature</i> 404, 293-296 (2000).
	BB	Hunter, C. Genetics: A touch of elegance with RNAi. <i>Curr. Biol.</i> 9, R440-R442 (1999).
	BC	Jacobsen, S.E. et al. Disruption of an RNA helicase/RNase III gene in <i>Arabidopsis</i> causes unregulated cell division in floral meristems. <i>Development</i> 126, 5231-5243 (1999).
✓	BD	Jones, A.L. et al. De novo methylation and co-suppression induced by a cytoplasmically replicating plant RNA virus. <i>EMBO J.</i> 17, 6385-6393 (1998).

Examiner Signature		Date Considered	10/27/05
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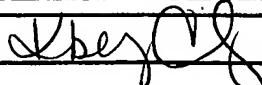
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KC	BE	Jones, L. et al. RNA-DNA Interactions and DNA Methylation in Post-Transcriptional Gene Silencing. <i>Plant Cell</i> 11, 2291-2301 (Dec. 1999).	
	BF	Kafejta, R.F. et al. An Integral Membrane Green Fluorescent Protein Marker, Us9-GFP, is Quantitatively Retained in Cells during Propidium Iodide-Based Cell Cycle Analysis by Flow Cytometry. <i>Exp. Cell. Res.</i> 248, 322-328 (1999).	
	BG	Kennerdell, J.R. & Carthew, R.W. Use of dsRNA-Mediated Genetic Interference to Demonstrate that frizzled and frizzled 2 Act in the Wingless Pathway. <i>Cell</i> 95, 1017-1026 (1998).	
	BH	Kennerdell, J.R. & Carthew, R.W. Heritable gene silencing in Drosophila using double-stranded RNA. <i>Nat. Biotechnol.</i> 17, 896-898 (2000).	
	BI	Ketting, R.F. et al. mut-7 of C. elegans, Required for Transposon Silencing and RNA Interference, Is a Homolog of Werner Syndrome Helicase and RNaseD. <i>Cell</i> 99, 133-141 (1999).	
	BJ	Kramer, E.R. et al. Activation of the human anaphase-promoting complex by proteins of the CDC20/Fizzy family. <i>Curr. Biol.</i> 8, 1207-1210 (1998).	
	BK	Lam, G. & Thummel, C.S. Inducible expression of double-stranded RNA directs specific genetic interference in Drosophila. <i>Curr. Biol.</i> 10, 957-963 (2000).	
	BL	Lohmann, J.U. et al. Silencing of Developmental Genes in Hydra. <i>Dev. Biol.</i> 214, 211-214 (1999).	
	BM	Matsuda, S. et al. Molecular cloning and characterization of a novel human gene (HERNA) which encodes a putative RNA-helicase. <i>Biochim. Biophys. Acta</i> 1490, 163-169 (2000).	
	BN	Misquitta, L. & Paterson, B.M. Targeted disruption of gene function in Drosophila by RNA interference (RNA-i): A role for nautilus in embryonic somatic muscle formation. <i>PNAS</i> 96, 1451-1456 (Feb. 1999).	
	BO	Montgomery, M.K. et al. RNA as a target of double-stranded RNA-mediated genetic interference in Caenorhabditis elegans. <i>PNAS</i> 95, 15502-15507 (Dec. 1998).	
	BP	Montgomery, M.K. & Fire, A. Double-stranded RNA as a mediator in sequence-specific genetic silencing and co-suppression. <i>Trends Genet.</i> 14, 255-258 (1998).	
	BQ	Mourrain, P. et al. Arabidopsis SGS2 and SGS3 Genes are Required for Posttranscriptional Gene Silencing and Natural Virus Resistance. <i>Cell</i> 101, 533-542 (2000).	
	BR	Ngo, H. et al. Double-stranded RNA induces mRNA degradation in Trypanosoma brucei. <i>PNAS</i> 95, 14687-14692 (Dec. 1998).	
	BS	Ratcliff, F. et al. A Similarity Between Viral Defense and Gene Silencing in Plants. <i>Science</i> 276, 1558-1560 (1997).	

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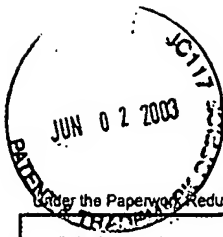
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		Attorney Docket Number	GNCA-P03-007
Sheet	4	of	5

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KE	BT	Sanchez Alvarado, A. & Newmark, P.A. Double-stranded RNA specifically disrupts gene expression during planarian regeneration. <i>PNAS</i> 96, 5049-5054 (April 1999).	
	BU	Schneider, I. Cell lines derived from late embryonic stages of <i>Drosophila melanogaster</i> . <i>J. Embryol. Exp. Morpho.</i> 27, 353-365 (1972).	
	BV	Sharp, P.A. RNAi and double-strand RNA. <i>Genes Dev.</i> 13, 139-141 (1999).	
	BW	Shi, H. et al. Genetic interference in <i>Typanosoma brucei</i> by heritable and inducible double-stranded RNA. <i>RNA</i> 6, 1069-1076 (2000).	
	BX	Shuttleworth, J. & Colman, A. Antisense oligonucleotide-directed cleavage of mRNA in <i>Xenopus</i> oocytes and eggs. <i>EMBO J.</i> 7, 427-434 (1988).	
	BY	Sijen, T. & Kooter, J.M. Post-transcriptional gene-silencing: RNAs on the attack or on the defense? <i>Bioessays</i> 22, 520-531 (2000).	
	BZ	Smardon, A. et al. EGO-1 is related to RNA-directed RNA polymerase and functions in germline development and RNA interference in <i>C. elegans</i> . <i>Curr. Biol.</i> 10, 169-178 (2000).	
	CA	Smith, N.A. et al. Total silencing by intron-spliced hairpin RNAs. <i>Nature</i> 407, 319-320 (2000).	
	CB	Tabara, H. et al. RNAi in <i>C. elegans</i> : Soaking in the Genome Sequence. <i>Science</i> 282, 430-432 (1998).	
	CC	Tabara, H. et al. The <i>rde-1</i> Gene, RNA Interference, and Transposon Silencing in <i>C. elegans</i> . <i>Cell</i> 99, 123-132 (1999).	
	CD	Tavernarakis, N. et al. Heritable and inducible genetic interference by double-stranded RNA encoded by transgenes. <i>Nat. Genet.</i> 24, 180-183 (2000).	
	CE	Timmons, L. & Fire, A. Specific interference by ingested dsRNA. <i>Nature</i> 395, 854 (1998).	
	CF	Tuschi, T. et al. Targeted mRNA degradation by double-stranded RNA in vitro. <i>Genes Dev.</i> 13, 3191-3197 (1999).	
	CG	Vaucheret, H. et al. Transgene-induced gene silencing in plants. <i>Plant J.</i> 16, 651-659 (1998).	
	CH	Wassenegger, M. & Pelissier, T. A model for RNA-mediated gene silencing in higher plants. <i>Plant Mol. Biol.</i> 37, 349-362 (1998).	
	CI	Waterhouse, P.M. et al. Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA. <i>PNAS</i> 95, 13959-13964 (Nov. 1998).	
	CJ	Wianny, F. & Zernicka-Goetz, M. Specific interference with gene function by double-stranded RNA in early mouse development. <i>Nature Cell Biol.</i> 2, 70-75 (2000).	
✓	CK	Wolf, D.A. & Jackson, P.K. Cell cycle: Oiling the gears of anaphase. <i>Curr. Biol.</i> 8, R636-R639 (1998).	

Examiner Signature	<i>K. Beach</i>	Date Considered	10/2
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KC	CL	Zamore, P.D. et al. RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals. <i>Cell</i> 101, 25-33 (2000).	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				Filing Date	January 22, 2002	
				First Named Inventor	David Beach	
				Art Unit	1632	
Examiner Name	LACOURCIERE, Karen					
Attorney Docket Number	GNCA-P03-007					
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		Number-Kind Code <sup>2</sup> (if known)			
KC	AA	6,506,559	01-14-2003	Fire et al.	

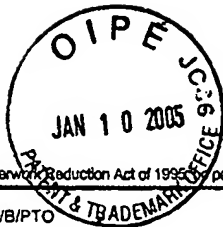
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
KC	AB	WO 94/01550	01-20-1994	Hybridon, Inc		
	AC	WO 00/63364	10-26-2000	American Home Products		
	AD	WO 00/44895	08-03-2000	RiboPharma AG		
	AE	WO 99/49029	09-30-1999	Dept. of Primary Industries		
	AF	WO 00/01846	01-13-2000	Devgen N.V.		
	AG	WO 00/44914	08-03-2000	University of Georgia		
	AH	WO 01/49844	07-12-2001	Rutgers University		

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KC	AI	Singh et al. "Inverted-repeat DNA: a new gene-silencing tool for seed lipid modification" <i>Biochem Soc Trans</i> 28(6):925 (2000)	
	AJ	Hammond et al. "Post-transcriptional gene silencing by double-stranded RNA" <i>Nature Rev Genetics</i> 2(2):10 (2001)	
	AK	Piccin et al. "Efficient and heritable functional knock-out of an adult phenotype in Drosophila using a GAL4-driven hairpin RNA incorporating a heterologous spacer" <i>Nuc Acid Res</i> 29(12):E55 (2001)	

Examiner Signature	<i>David Beach</i>	Date Considered	10/27/05
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				First Named Inventor	David H. Beach
				Art Unit	1635
				Examiner Name	K.A. Lacourciere
Sheet	1	of	1	Attorney Docket Number	CSHL-P03-010

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NON PATENT LITERATURE DOCUMENTS			
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KC	CA	Agrawal, S., et al., "Antisense therapeutics: is it as simple as complementary base recognition?," Molecular Medicine Today, 61:72-81 (2000).	
	CB	Caplen, N.J., et al., "dsRNA-mediated gene silencing in cultured Drosophila cells: a tissue culture model for the analysis of RNA interference," Gene, 252:95-105 (2000).	
	CC	Caplen, N.J., et al., "RNAi as a gene therapy approach," Expert Opin. Biol. Ther., 3(4):575-586 (2003).	
	CD	Check, E., "RNA to the rescue? Disease therapies based on a technique for gene silencing called RNA interference are racing towards the clinic. Erika Check investigates molecular medicine's next big thing," Nature, 425:10-12 (2003).	
	CE	Jen, K.Y., et al., "Suppression of Gene Expression by Targeted Disruption of Messenger RNA: Available Options and Current Strategies," Stem Cells, 18:307-319 (2000).	
	CF	Wadhwa, R., et al., "Know-how of RNA interference and its applications in research and therapy," Mutation Research, 567:71-84 (2004).	

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				Art Unit	1635
				Examiner Name	Chong, K.
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CAU.S. PATENT DOCUMENTS					
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		Number-Kind Code <sup>2</sup> (if known)			
KC	AA	2005/0164210	07-28-2005	Mittal et al.	

CBFOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
KC	BA	WO 04/029219	04-08-2004	Fridman et al.		
KC	BB	WO 00/44914	08-03-2000	Li et al.		
KC	BC	WO 01/29058	04-26-2001	Mello et al.		

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KC	CA	Ambros V, Dicing Up RNAs, Science 293: 811-813 (2001).			
	CB	Bernstein E, et al., The rest is silence, RNA 7(11):1509-21 (2001).			
	CC	Bernstein E, et al., Role for a bidentate ribonuclease in the initiation step of RNA interference, Nature 409(6818):363-6 (2001).			
	CD	Bernstein E, et al., Dicer is essential for mouse development, Nat Genet. 35(3):215-7 (2003); Epub 2003 Oct 5.			
	CE	Carmell MA, et al., The Argonaute family: tentacles that reach into RNAi, developmental control, stem cell maintenance, and tumorigenesis, Genes Dev. 16(21):2733-42 (2002).			
	CF	Carmell MA, et al., Germline transmission of RNAi in mice, Nat Struct Biol. 10(2):91-2 (2003).			
	CG	Carmell MA, et al., RNase III enzymes and the initiation of gene silencing, Nat Struct Mol Biol. 11(3):214-8 (2004).			
	CH	Caudy AA, et al., Fragile X-related protein and VIG associate with the RNA interference machinery, Genes Dev. 16(19):2491-6 (2002).			
	CI	Caudy AA, et al., A micrococcal nuclease homologue in RNAi effector complexes, Nature 425(6956):411-4 (2003).			
	CJ	Caudy AA, et al., Induction and biochemical purification of RNA-induced silencing complex from Drosophila S2 cells, Methods Mol Biol. 265:59-72 (2004).			
	CK	Cleary MA, et al., Production of complex nucleic acid libraries using highly parallel in situ oligonucleotide synthesis, Nat Methods. 1(3):241-8 (2004); Epub 2004 Nov 18.			
	CL	Denli AM, et al., RNAi: an ever-growing puzzle, Trends Biochem Sci. 28(4):196-201 (2003).			
	CM	Denli AM, et al., Processing of primary microRNAs by the Microprocessor complex, Nature. 432(7014):231-5 (2004); Epub 2004 Nov 7.			
	CN	Eck SL, et al., Gene-based therapy, Goodman & Gilman's, The Pharmacological Basis of Therapeutics, 9 <sup>th</sup> Edition, 5:77-101 (1996).			
	CO	Fraser A., Human Genes Hit the Big Screen, Nature 428: 375-378 (2004).			
	CP	Gupta S, et al., Inducible, reversible, and stable RNA interference in mammalian cells, Proc			

Examiner Signature	<i>Khey Chong</i>	Date Considered	10/27/05
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Sheet	2	of	3	Attorney Docket Number	CSHL-P03-010

		Natl Acad Sci USA 101(7):1927-32 (2004); Epub 2004 Feb 4.	
	CQ	Hammond SM, et al., Post-transcriptional gene silencing by double-stranded RNA, Nat Rev Genet. 2(2):110-9 (2001).	
	CR	Hannon GJ, RNA interference, Nature 418(6894):244-51 (2002).	
	CS	Hannon GJ, et al., RNA interference by short hairpin RNAs expressed in vertebrate cells, Methods Mol Biol. 257:255-66 (2004).	
	CT	Hannon GJ, et al., Unlocking the potential of the human genome with RNA interference, Nature. 431(7006):371-8 (2004).	
	CU	He L, et al., MicroRNAs: small RNAs with a big role in gene regulation, Nat Rev Genet. 5(7):522-31 (2004).	
	CV	He L, et al., A microRNA polycistron as a potential human oncogene, Nature 435(7043):828-33 (2005).	
	CW	Hemann MT, et al., An epi-allelic series of p53 hypomorphs created by stable RNAi produces distinct tumor phenotypes in vivo, Nat Genet. 33(3):396-400 (2003); Epub 2003 Feb 3.	
	CX	Jackson, AL, et al., Expression profiling reveals off-target gene regulation by RNAi, Nature Biotechnology 21(6), 635-638 (June 2003).	
	CY	Ketting, RF, et al., Dicer functions in RNA interference and in synthesis of small RNA involved in developmental timing in <i>C. elegans</i> , Genes Dev 15, 2654-2659. (Oct 15, 2001).	
	CZ	Lee, YS, et al., Distinct Roles for Drosophila Dicer-1 and Dicer-2 in the siRNA/miRNA Silencing Pathways, Cell 117, 69-81 (Apr 2, 2004).	
	CA1	Liu J, et al., Argonaute2 is the catalytic engine of mammalian RNAi, Science 305(5689):1437-41 (2004); Epub 2004 Jul 29.	
	CB1	Liu J, et al., MicroRNA-dependent localization of targeted mRNAs to mammalian P-bodies, Nat Cell Biol. 7(7):719-23 (2005); Epub 2005 Jun 5.	
	CC1	Lund E, et al., Nuclear Export of MicroRNA Precursors, Science 303, 95-98 (Jan 2, 2004).	
	CD1	<del>Marshall E, Gene therapy's growing pains, Science 269:1060-1065 (1995).</del>	
	CE1	McCaffrey AP, et al., RNA interference in adult mice, Nature 418(6893):38-9 (2002).	
	CF1	Murchison EP, et al., miRNAs on the move: miRNA biogenesis and the RNAi machinery, Curr Opin Cell Biol. 16(3):223-9 (2004).	
	CG1	Paddison PJ, et al., RNA interference: the new somatic cell genetics?, Cancer Cell. 2(1):17-23 (2002).	
	CH1	Paddison PJ, et al., siRNAs and shRNAs: skeleton keys to the human genome, Curr Opin Mol Ther. 5(3):217-24 (2003).	
	CI1	Paddison PJ, et al., Short hairpin activated gene silencing in mammalian cells, Methods Mol Biol. 265:85-100 (2004).	
	CJ1	Paddison PJ, et al., A resource for large-scale RNA-interference-based screens in mammals, Nature 428(6981):427-31 (2004).	
	CK1	Paddison PJ, et al., Stable suppression of gene expression by RNAi in mammalian cells, 99(3):1443-1448 (2002).	
	CL1	Paddison PJ, et al., Short hairpin RNAs (shRNAs) induce sequence-specific silencing in mammalian cells, Genes & Development 16:948-958 (2002).	
	CM1	Pham JW, et al., A Dicer-2-Dependent 80S Complex Cleaves Targeted mRNAs during RNAi in Drosophila, Cell 117, 83-94 (Apr 2, 2004).	
	CN1	Qi Y, et al., Biochemical Specialization within Arabidopsis RNA Silencing Pathways, Mol Cell. 19(3):421-8 (2005).	
	CO1	Rivas FV, et al., Purified Argonaute2 and an siRNA form recombinant human RISC, Nat Struct Mol Biol. 12(4):340-9 (2005); Epub 2005 Mar 30.	
	CP1	Schramke V, et al., RNA-interference-directed chromatin modification coupled to RNA polymerase II transcription, Nature 435(7046):1275-9 (2005); Epub 2005 Jun 19.	
	CQ1	Silva JM, et al., RNA interference: a promising approach to antiviral therapy?, Trends Mol Med. 8(11):505-8 (2002).	

Examiner Signature	<i>K. Chong</i>	Date Considered	10/27/05
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				Examiner Name	Chong, K.
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KC	CR1	Silva JM, et al., Free energy lights the path toward more effective RNAi, Nat Genet. 35(4):303-5 (2003).	
	CS1	Silva J, et al., RNA-interference-based functional genomics in mammalian cells: reverse genetics coming of age, Oncogene. 23(51):8401-9 (2004).	
	CT1	Silva JM, et al., RNA interference microarrays: high-throughput loss-of-function genetics in mammalian cells, Proc Natl Acad Sci USA. 101(17):6548-52 (2004); Epub 2004 Apr 14.	
	CU1	Silva JM, et al., Second-generation shRNA libraries to the mouse and human genomes, unpublished manuscript	
	CV1	Siolas D, et al., Synthetic shRNAs as potent RNAi triggers, Nat Biotechnol. 23(2):227-31 (2005); Epub 2004 Dec 26.	
	CW1	Song JJ, et al., The crystal structure of the Argonaute2 PAZ domain reveals an RNA binding motif in RNAi effector complexes, Nat Struct Biol. 10(12):1026-32 (2003); Epub 2003 Nov 16.	
	CX1	Song JJ, et al., Crystal structure of Argonaute and its implications for RISC slicer activity, Science 305(5689):1434-7 (2004); Epub 2004 Jul 29.	
	CY1	Svoboda P, et al., RNAi and expression of retrotransposons MuERV-L and IAP in preimplantation mouse embryos; Dev Biol. 269(1):276-85 (2004).	
	CZ1	Tabara H, et al., The dsRNA Binding Protein RDE-4 Interacts with RDE-1, DCR-1, and a DEXH-Box Helicase to Direct RNAi in C. elegans, Cell 109, 861-871. (Jun 28, 2002).	
	CA2	Tomari Y, et al., RISC Assembly Defects in the Drosophila RNAi Mutant armitage, Cell 116, 831-841 (Mar 19, 2004).	
	CB2	Zhang H, et al., Human Dicer preferentially cleaves dsRNAs at their termini without a requirement for ATP, The Embo Journal, 21, 5875-5885. (Nov 1, 2002).	

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				First Named Inventor	David H. Beach
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				Examiner Name	K.A. Lacourciere
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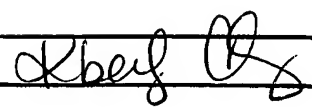
FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
KC	BA	WO 99/32619	07-01-1999	The Carnegie Institute of Washington		

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KC	CA	Hammond, S., et al., "Argonaute2, a Link Between Genetic and Biochemical Analyses RNAi," Science, 293:5532, 1146-1150 (2001).		
	CB	Moss, Eric G., "RNA interference: It's a small RNA world," Current Biology, 11(19), R772-R775 (2001).		
	CC	Tuschl, T. et al., "Targeted mRNA degradation by double-stranded RNA in vitro, Genes & Development, 13(24):3191-3197 (1999).		

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Kc	AA	US-2002/0114784	08-22-2002	Yin-Xiong Li	
	AB	US-2003/0084471	05-01-2003	David Beach	
	AC	US-2004/0018999	01-29-2004	David Beach	
	AD	US-2004/0086884	05-06-2004	David Beach	

FOREIGN PATENT DOCUMENTS						
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